

Title (en)
MICROWAVE AMPLIFIER TUBE WITH TWO RING RESONATORS

Publication
EP 0069426 B1 19860108 (DE)

Application
EP 82200811 A 19820630

Priority
DE 3126119 A 19810702

Abstract (en)
[origin: US4508992A] A microwave amplifier tube having a first and a second ring resonator of which the first serves as a driver resonator and the second serves as an output resonator. By means of a cathode system an electron beam rotating about the ring axis at the frequency of a control signal is generated. The electron beam is accelerated by a direct voltage and enters the second ring resonator which is tuned to the same frequency as the first resonator. The electron beam influences a high-frequency electromagnetic field in the second resonator and delivers a part of its energy to said second resonator. In order to facilitate equalization of the angular phase velocities in the two resonators, the ring resonators are provided above each other in the direction of the ring axis and the electron beam passes through the first and the second ring resonator parallel to the ring axis.

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H01J 25/20

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H01J 25/14 (2006.01); **H01J 25/20** (2006.01)

CPC (source: EP US)
H01J 25/14 (2013.01 - EP US); **H01J 25/20** (2013.01 - EP US)

Cited by
FR2521345A1; US4520293A

Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
EP 0069426 A2 19830112; EP 0069426 A3 19830525; EP 0069426 B1 19860108; DE 3126119 A1 19830120; DE 3268389 D1 19860220; US 4508992 A 19850402

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